

COMPRESSOR WITH INTERNAL ACCUMULATOR FOR USE IN
SPLIT COMPRESSOR

ABSTRACT

A rotary compressor having a housing with a motor and an internal accumulator located on the low pressure side and an oil sump located on the high pressure side. A sealing means positioned within the housing defines a first low pressure chamber and a second high pressure chamber. The sealing means substantially maintains the pressure differential between the chambers by segregating high pressure fluid in the high pressure chamber from low pressure fluid in the low pressure chamber. The fluid entering the housing is separated into a gas portion and a liquid portion, the liquid portion being directed downward toward the motor to provide cooling for the motor while the gas portion is directed to a compressor portion through a channeling means internal to the compressor housing. The liquid portion collects above the sealing means. At least one orifice or aperture through the sealing means allows liquid collected above the sealing means to be reintroduced into the compressor suction inlet and metered into the refrigerant gas in a controlled fashion and resupply the sump with lubricant.